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FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF SECRETARY

William F. Caton  
Acting Secretary  
Federal Communications Commission  
Room 222  
1919 M Street, N.W.  
Washington, D.C. 20554

Re: ET Docket No. 93-7 -- Ex Parte Presentation

Dear Mr. Caton:

On May 22, 1995, representatives of the Consumer Electronics Group of the Electronic Industries Association ("EIA/CEG") made an ex parte presentation to John Nakahata, Special Assistant to Chairman Reed E. Hundt, regarding the Decoder Interface for cable ready consumer electronics equipment. Representing EIA/CEG were Matthew J. McCoy, George A. Hanover, and the undersigned of this Firm. The views expressed on behalf of EIA/CEG are reflected in the Association's filings with the Commission, as well as in the attached materials.

Please let us know if you have any questions.

Sincerely,



Joseph P. Markoski

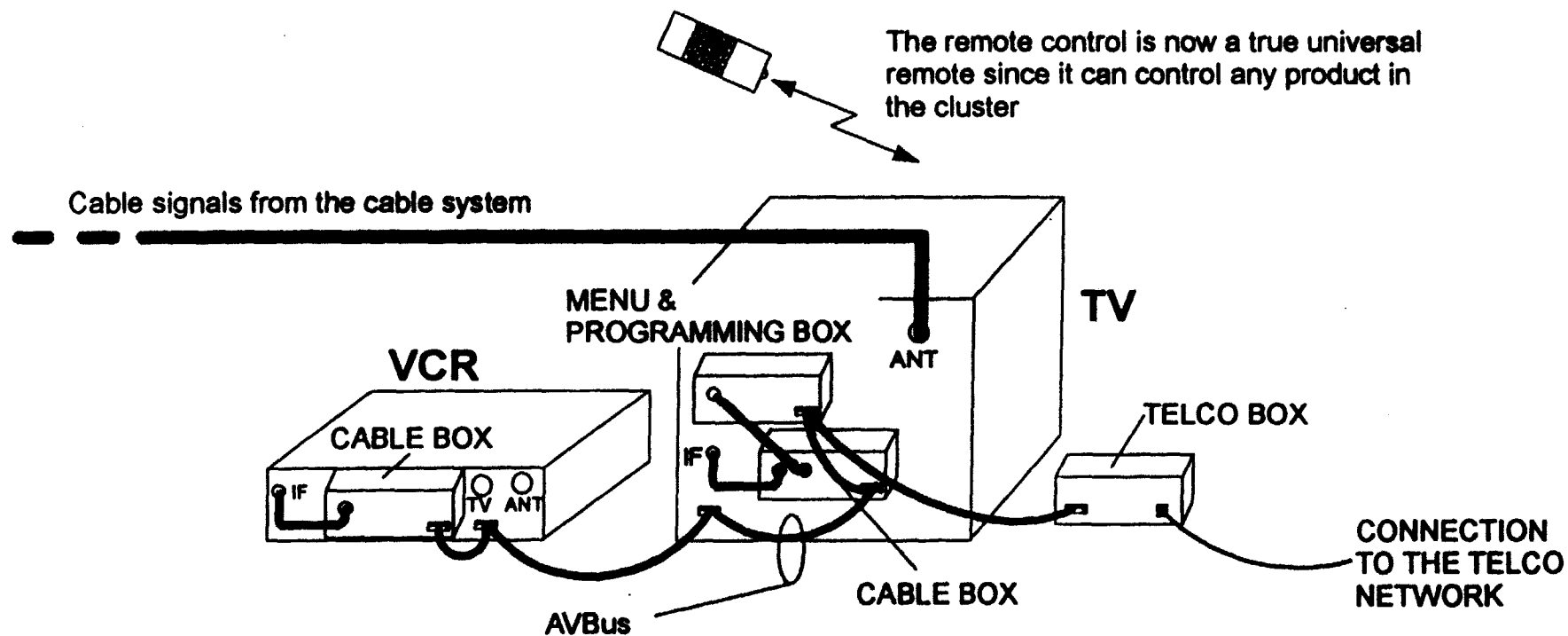
Enclosures

cc: John Nakahata

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## THE DECODER INTERFACE: ADDING OTHER NETWORK BOXES





## Electronic Industries Association

### **THE CABLE ACT, THE FCC'S CABLE COMPATIBILITY PROCEEDING, AND THE DECODER INTERFACE**

- I. **SECTION 17 OF THE 1992 CABLE ACT DIRECTS THE FCC TO ADOPT RULES THAT, "CONSISTENT WITH THE NEED TO PREVENT THEFT OF CABLE SERVICE," ENABLE CONSUMERS "TO ENJOY THE FULL BENEFIT OF BOTH THE PROGRAMMING AVAILABLE ON CABLE SYSTEMS AND THE FUNCTIONS AVAILABLE ON THEIR TELEVISIONS AND VIDEO CASSETTE RECORDERS."**
- II. **THE FCC INITIATED ET DOCKET NO. 93-7, THE CABLE COMPATIBILITY PROCEEDING, TO IMPLEMENT SECTION 17 OF THE CABLE ACT.**
  - The First Report and Order adopted rules governing consumer electronics equipment that will be marketed as "cable ready," whether they be TVs, VCRs, PCs or other devices. The FCC's rules do not prescribe standards for any other consumer electronics equipment.
  - The First Report and Order requires "cable ready" consumer electronics equipment to include a Decoder Interface that:
    - enables analog TVs and other consumer electronics equipment to receive scrambled cable signals without using a cable-provided set-top converter box;
    - allows consumers to take full advantage of the features and functions of their TVs and VCRs;
    - prohibits cable operators from requiring consumers to use any cable-provided equipment other than a decoder module that performs security (i.e., descrambling) functions; and
    - provides consumers with access not only to cable television, but also "to competing video delivery systems, such as home satellite dish, Direct Broadcast Satellite and wireless cable."
  - The First Report and Order directed the C<sup>3</sup>AG to submit detailed specifications for the Decoder Interface no later than August 15, 1994.

**III. ALTHOUGH THE CABLE AND CONSUMER ELECTRONICS MEMBERS OF THE C<sup>3</sup>AG HAVE NOT YET BEEN ABLE TO AGREE ON ALL OF THE PARAMETERS OF THE DECODER INTERFACE, THE STANDARD THAT IS ULTIMATELY ADOPTED MUST SATISFY THE REQUIREMENTS OF THE CABLE ACT AND THE FIRST REPORT AND ORDER.**

- The Cable Act requires both "plug and play" compatibility and the prevention of signal theft.
- The First Report and Order requires the Decoder Interface to:
  - "allow access control functions to be separated from other control functions";
  - permit the descrambling of authorized programming only; and
  - support cable television, as well as "competing video delivery systems."
- To comply with these legislative and regulatory requirements, the Decoder Interface must:
  - include a control channel that enables consumers to select the decoder module associated with a particular video delivery system, a task that cannot be performed by a simple physical interface;
  - include a control channel that permits communication between the selected decoder module and the "cable ready" TV or VCR so as to ensure that consumers are only given access to authorized programming, a task that cannot be performed by a simple physical interface; and
  - deliver descrambled audio and video signals from the decoder module to "cable ready" consumer electronics equipment.
- A control channel requires the use of a command language or protocol that is understood by each of the decoder modules attached to the Decoder Interface. Absent such an agreed upon language or protocol, consumers would have no assurance that their "cable ready" consumer electronics equipment will work with cable television and other video systems.
- In short, IS-105 must include a bus structure in order to comply with the requirements of the Cable Act and the First Report and Order.

**IV. DRAFT IS-105, THE INCOMPLETE DECODER INTERFACE STANDARD WHICH THE C<sup>3</sup>AG FILED WITH THE FCC ON AUGUST 15, 1994, DOES NOT INCORPORATE OR FAVOR ANY HOME AUTOMATION STANDARD.**

- IS-105 is an open, non-proprietary standard.
- IS-105 is not a subset of AVBus.
  - AVBus is designed to support interconnected audio and video entertainment devices such as TVs, VCRs, disc players, receivers, tape decks, surround sound and home theaters; the IS-105 bus, by contrast, is designed to support decoder modules attached to the back of "cable ready" consumer electronics equipment.
  - AVBus commands allow for two-way communication between audio and video entertainment equipment; IS-105 bus commands, by contrast, only allow for communication between decoder modules and consumer electronics equipment.
  - AVBus has a maximum length of 10 meters (less than the perimeter of an average room); the IS-105 bus, by contrast, has a maximum length of only 2 meters (less than the width of an average room).
- IS-105 is not a subset of CEBus.
  - CEBus is intended to control the operation of most home products; the IS-105 bus, by contrast, only supports decoder modules attached to the back of "cable ready" consumer electronics equipment.
  - CEBus consists of five discrete buses, depending on the media employed (e.g., power lines, coaxial cable, RF); IS-105, by contrast, uses none of these buses.
  - CEBus has a maximum length of 30 meters (adequate to serve an average home); the IS-105 bus, by contrast, has a maximum length of 2 meters (less than width of an average room).
- The IS-105 command channel utilizes "CAL," the Common Application Language used by AVBus and CEBus.
  - There is nothing unique about CAL; like other control system languages, CAL is object-oriented (so as to make it easier to understand and use). Unlike Echelon's command language, CAL can be used without restriction by any manufacturer.

- What distinguishes the CAL used by the Decoder Interface from other languages is not the language itself, but rather the Decoder Interface-specific commands that have been defined.
- If IS-105 did not utilize CAL, it would have been necessary for C<sup>3</sup>AG to develop or use an equivalent, agreed upon language to ensure that "cable ready" TVs and VCRs can function with cable and other "competing video systems."
- IS-105's use of CAL does not favor AVBus or CEBus, nor make it suitable for home automation purposes because the Decoder Interface:
  - can only support a limited number of decoder modules;
  - cannot use the media (e.g., power lines) needed to operate a home automation system;
  - is limited to a bus that is 2 meters long; and
  - a "gateway" would be required to connect the Decoder Interface to any home automation system.

**V. ECHELON'S ELEVENTH-HOUR CHALLENGE TO THE DECODER INTERFACE SHOULD BE REJECTED.**

- Echelon's problems are not with the Decoder Interface, but rather with the requirements of the Cable Act and the First Report and Order.
- Echelon never challenged the Cable Act or asked the FCC to reconsider the First Report and Order.
- Echelon had the opportunity, but never actively participated in the ANSI-accredited process that was used to develop IS-105.
- To preclude IS-105's use of CAL would mean that every new standard must be developed "from the ground up" and may not rely on the most rudimentary elements of other standards. Such a result is inconsistent with sound engineering and would seriously undermine the standards-setting process.

- The FCC's rules regarding "cable ready" consumer electronics equipment, which become effective on June 30, 1997 and which do not yet include the specifications for the Decoder Interface, already leave too little time for the consumer electronics industry to design and manufacture "cable ready" equipment.
- Any delay in the availability of "cable ready" consumer electronics equipment will perpetuate the compatibility problems which the Cable Act was intended to redress.
- The Decoder Interface -- which is designed to address the compatibility of analog TVs and cable systems -- is a transitory mechanism that will decline in significance with the advent of digital audio and video transmission.